

# **NOTICE**

**All drawings located at the end of the document.**

**DRAFT INDUSTRIAL AREA  
SAMPLING AND ANALYSIS PLAN  
FY03 ADDENDUM #IA-03-02  
IHSS GROUP 000-1**

**November 2002**

## TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Existing Characterization Information.....	1
2.0	SAMPLING.....	1
3.0	REFERENCES.....	2

## LIST OF TABLES

Table 1	IASAP Addendum #IA-03-02 IHSS Group 000-1 .....	1
Table 2	Potential Contaminants of Concern IHSS Group 000-1 .....	5
Table 3	Sampling Specifications IHSS Group 000-1.....	6

## LIST OF FIGURES

Figure 1	FY03 IHSS Group 000-1 Location Map.....	3
Figure 2	Existing Sample Results Greater Than Background Mean Plus Two Standard Deviations or MDLs at IHSS Group 000-1 .....	4
Figure 3	Proposed Sampling Locations IHSS Group 000-1 .....	10

## ACRONYMS

FY	Fiscal Year
HPGe	high-purity germanium
HRR	Historical Release Report
IA	Industrial Area
IASAP	Industrial Area Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site
MDL	method detection limit
mg/kg	milligrams per kilogram
PCB	polychlorinated biphenyl
pCi/g	picocuries per gram
PCOC	potential contaminant of concern
SAP	Sampling and Analysis Plan
SVOC	semivolatile organic compound
ug/mg	micrograms per kilogram
VOC	volatile organic compound

## 1.0 INTRODUCTION

This Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP) (DOE 2001) Addendum #IA-03-02 includes Individual Hazardous Substance Site (IHSS) Group-specific information, and sampling locations proposed for characterization. This IASAP Addendum is a supplement to the IASAP (DOE 2001) and includes data and proposed sampling locations for the IHSS Group and associated IHSSs listed in Table 1. The locations of the IHSS Group and IHSSs, for FY03 are shown on Figure 1.

**Table 1**  
**IASAP Addendum #IA-03-02 IHSS Group 000-1**

IHSS Group	IHSS/PAC/UBC Site
000-1	IHSS 101 – Solar Evaporation Ponds (area north of IHSS 175)
	IHSS 165 – Triangle Area
	IHSS 175 – S&W Contractor Yard

### 1.1 EXISTING CHARACTERIZATION INFORMATION

Existing concentrations and activities above the background mean plus two standard deviations or method detection limits (MDLs), are presented on Figure 2. Table 2 presents the potential contaminants of concern (PCOCs). Existing data for these IHSSs are available in Appendix C of the IASAP (DOE 2001), HRR (DOE 1992-2001), and the Industrial Area Data Summary Report (DOE 2000). PCOCs in the IHSS Group 000-1 include radionuclides, metals, semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), and occasionally, polychlorinated biphenyls (PCBs).

## 2.0 SAMPLING

The proposed sampling specifications (number and types of samples) for IHSS Group 000-1 are listed in Table 3 and shown on Figure 3. All proposed sampling locations are biased towards areas of the IHSSs that do not have existing sampling locations and are intended to augment the existing data.

Proposed new sampling locations are the starting point for IHSS Group characterization. After characterization starts, the number and type of samples may change based on sampling results. Changes to sampling specifications will be considered in consultation with the regulatory agencies.

Four additional sampling locations, two in Pond B South and two in Pond 2C will be determined through the consultative process, after the berms are pushed in. Samples will be collected from 0.0 to 0.5 feet below the liners and analyzed for radionuclides and metals. Because the location of these samples has not yet been determined they are not shown on the figures.

### **3.0 REFERENCES**

- DOE, 1992-2001, Historical Release Reports for the Rocky Flats Plant, Golden, Colorado.
- DOE, 2000, Rocky Flats Environmental Technology Site Industrial Area Data Summary Report, Golden, Colorado, September.
- DOE, 2001, Industrial Area Sampling and Analysis Plan, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

**Table 2**  
**Potential Contaminants of Concern IHSS Group 000-1**

IHSS Group	IHSS/PAC/UBC Site	PCOCs	Media	Data Source	Sampling Location Method
000-1	IHSS 101 – Solar Evaporation Ponds	Metals	Surface	HRR (DOE 1992-2001) Process knowledge (IASAP [DOE 2001]) IA Data Summary Report (DOE 2000)	Biased
	IHSS 165 – Triangle Area	Radionuclides Metals SVOCs PCBs	Surface	HRR (DOE 1992-2001) Process knowledge (IASAP [DOE 2001]) IA Data Summary Report (DOE 2000)	Biased
	IHSS 176 – S&W Contractor Yard	Radionuclides Metals SVOCs	Surface	HRR (DOE 1992-2001) Process knowledge (IASAP [DOE 2001]) IA Data Summary Report (DOE 2000)	Biased

**Table 3**  
**Sampling Specifications IHSS Group 000-1**

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
000-1	IHSS 101 – Solar Evaporation Ponds (area north of IHSS 165)	CM47-A003	2085314.671	750929.014	Surface Soil	0-0.5'	Metals	6200	6010
		CM47-A004	2085314.671	750785.059	Surface Soil	0-0.5'	Metals	6200	6010
		CM48-A008	2085305.154	751001.586	Surface Soil	0-0.5'	Metals	6200	6010
		CN47-A000	2085374.157	750899.271	Surface Soil	0-0.5'	Metals	6200	6010
		CN47-A001	2085375.346	750825.509	Surface Soil	0-0.5'	Metals	6200	6010
		CN48-A000	2085369.398	750968.274	Surface Soil	0-0.5'	Metals	6200	6010
		CM46-A001	2085253.996	750748.178	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec
	IHSS 176 – S&W Contractor Yard – Building 996	CM46-A001	2085253.996	750748.178	Surface Soil	0-0.5'	Metals	6200	6010
		CM46-A001	2085253.996	750748.178	Surface Soil	0-0.5'	SVOCs	N/A	8270
		CM46-A001	2085253.996	750748.178	Surface Soil	0-0.5'	PCBs	N/A	8082
		CM46-A002	2085319.430	750713.676	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec
		CM46-A002	2085319.430	750713.676	Surface Soil	0-0.5'	Metals	6200	6010
		CM46-A002	2085319.430	750713.676	Surface Soil	0-0.5'	SVOCs	N/A	8270
		CM46-A002	2085319.430	750713.676	Surface Soil	0-0.5'	PCBs	N/A	8082
IHSS 176 – S&W Contractor Yard	IHSS 176 – S&W Contractor Yard – Building 996	CM45-A001	2085330.138	750497.149	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec
		CM45-A001	2085330.138	750497.149	Surface Soil	0-0.5'	Metals	6200	6010
		CM45-A001	2085330.138	750497.149	Surface Soil	0-0.5'	SVOCs	N/A	8270
		CN44-A000	2085457.436	750357.953	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec
		CN44-A000	2085457.436	750357.953	Surface Soil	0-0.5'	Metals	6200	6010
	IHSS 176 – S&W Contractor Yard – Building 996	CN44-A000	2085457.436	750357.953	Surface Soil	0-0.5'	SVOCs	N/A	8270
		CN46-A000	2085444.350	750722.004	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec
		CN46-A000	2085444.350	750722.004	Surface Soil	0-0.5'	Metals	6200	6010
		CN46-A000	2085444.350	750722.004	Surface Soil	0-0.5'	SVOCs	N/A	8270

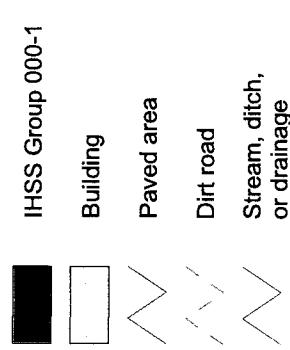
IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
IHSS 165 – Triangle Area	CN46-A001	2085450.298	750649.432	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CN46-A001	2085450.298	750649.432	Surface Soil	0-0.5'	Metals	6200	6010	
	CN46-A001	2085450.298	750649.432	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CN46-A002	2085387.244	750607.792	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CN46-A002	2085387.244	750607.792	Surface Soil	0-0.5'	Metals	6200	6010	
	CN46-A002	2085387.244	750607.792	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CN45-A000	2085455.057	750503.098	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CN45-A000	2085455.057	750503.098	Surface Soil	0-0.5'	Metals	6200	6010	
	CN45-A000	2085455.057	750503.098	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CN45-A001	2085516.922	750398.403	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
CP46-A001	CN45-A001	2085516.922	750398.403	Surface Soil	0-0.5'	Metals	6200	6010	
	CO46-A000	2085633.513	750622.069	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CO46-A000	2085633.513	750622.069	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CO46-A000	2085633.513	750622.069	Surface Soil	0-0.5'	Metals	6200	6010	
	CO46-A001	2085695.378	750660.139	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CO46-A001	2085695.378	750660.139	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CO46-A001	2085695.378	750660.139	Surface Soil	0-0.5'	Metals	6200	6010	
	CO46-A001	2085695.378	750660.139	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CP46-A000	2085821.487	750662.519	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CP46-A000	2085821.487	750662.519	Surface Soil	0-0.5'	Metals	6200	6010	
CP46-A001	CP46-A000	2085821.487	750662.519	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CP46-A001	2085826.246	750589.946	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CP46-A001	2085826.246	750589.946	Surface Soil	0-0.5'	Metals	6200	6010	
	CP46-A001	2085826.246	750589.946	Surface Soil	0-0.5'	SVOCs	N/A	8270	
	CQ45-A000	2085951.166	750524.512	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CQ45-A000	2085951.166	750524.512	Surface Soil	0-0.5'	Metals	6200	6010	
	CQ45-A000	2085951.166	750524.512	Surface Soil	0-0.5'	SVOCs	N/A	8270	
CP46-A002	CP46-A002	2085884.542	750630.397	Surface Soil	0-0.5'	Radionuclides	HPGe	Alpha Spec	
	CP46-A002	2085884.542	750630.397	Surface Soil	0-0.5'	Metals	6200	6010	

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
	CP46-A002	2085884.542	750630.397	Surface Soil	0-0.5'	SVOCs	N/A	HPGe	Alpha Spec
CP46-A003	2085879.783	750701.779	Surface Soil	0-0.5'	Radionuclides				8270
CP46-A003	2085879.783	750701.779	Surface Soil	0-0.5'	Metals	6200			6010
CP46-A003	2085879.783	750701.779	Surface Soil	0-0.5'	SVOCs	N/A			8270
CQ46-A000	2085945.217	750742.229	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A000	2085945.217	750742.229	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A000	2085945.217	750742.229	Surface Soil	0-0.5'	SVOCs	N/A			8270
CQ46-A001	2085940.458	750668.467	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A001	2085940.458	750668.467	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A001	2085940.458	750668.467	Surface Soil	0-0.5'	SVOCs	N/A			6010
CQ46-A002	2085949.976	750598.274	Surface Soil	0-0.5'	Radionuclides				8270
CQ46-A002	2085949.976	750598.274	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A002	2085949.976	750598.274	Surface Soil	0-0.5'	SVOCs	N/A			6010
CQ46-A003	2086011.841	750563.773	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A003	2086011.841	750563.773	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A003	2086011.841	750563.773	Surface Soil	0-0.5'	SVOCs	N/A			8270
CQ46-A004	2086008.272	750639.914	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A004	2086008.272	750639.914	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A004	2086008.272	750639.914	Surface Soil	0-0.5'	SVOCs	N/A			8270
CQ46-A005	2086003.513	750708.917	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A005	2086003.513	750708.917	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A005	2086003.513	750708.917	Surface Soil	0-0.5'	SVOCs	N/A			8270
CQ46-A006	2086003.513	750708.917	Surface Soil	0-0.5'	Radionuclides				HPGe
CQ46-A006	2086073.706	750599.464	Surface Soil	0-0.5'	Metals	6200			Alpha Spec
CQ46-A006	2086073.706	750599.464	Surface Soil	0-0.5'	SVOCs	N/A			6010
SEP A OC Stewardship	Pond B South 1	TBD	TBD	Subsurface Soil liner'	0-0.5 below liner'	Radionuclides			HPGe
	Pond B South 1	TBD	TBD	Subsurface Soil liner'	0-0.5 below liner'	Metals	6200		Alpha Spec
	Pond B South 2	TBD	TBD	Subsurface Soil liner'	0-0.5 below liner'	Radionuclides			HPGe

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
	Pond B South 2	TBD	TBD	Subsurface Soi	0-0.5 below liner'	Metals	6200	6010	
	Pond 2C 1	TBD	TBD	Subsurface Soi	0-0.5 below liner'	Radionuclides	HPGe	Alpha Spec	
	Pond 2C 1	TBD	TBD	Subsurface Soi	0-0.5 below liner'	Metals	6200	6010	
	Pond 2C 2	TBD	TBD	Subsurface Soi	0-0.5 below liner'	Radionuclides	HPGe	Alpha Spec	
	Pond 2C 2	TBD	TBD	Subsurface Soi	0-0.5 below liner'	Metals	6200	6010	

**Figure 1**  
**IHSS Group 000-1**  
**Location Map**

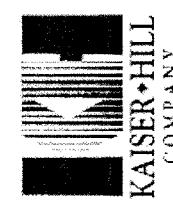
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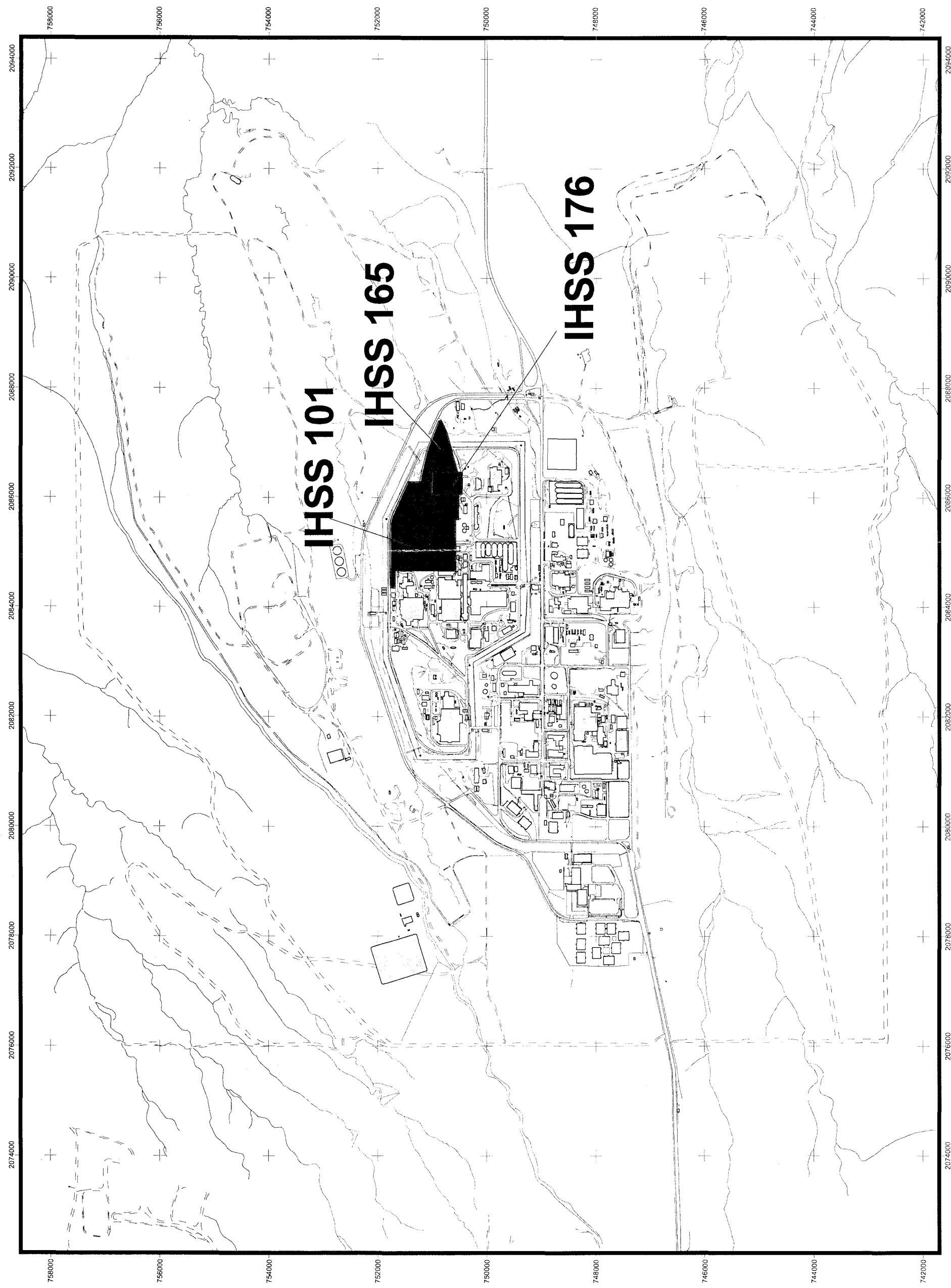
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Colorado Central Zone  
Datum: NAD 27

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Rocky Flats Environmental Technology Site

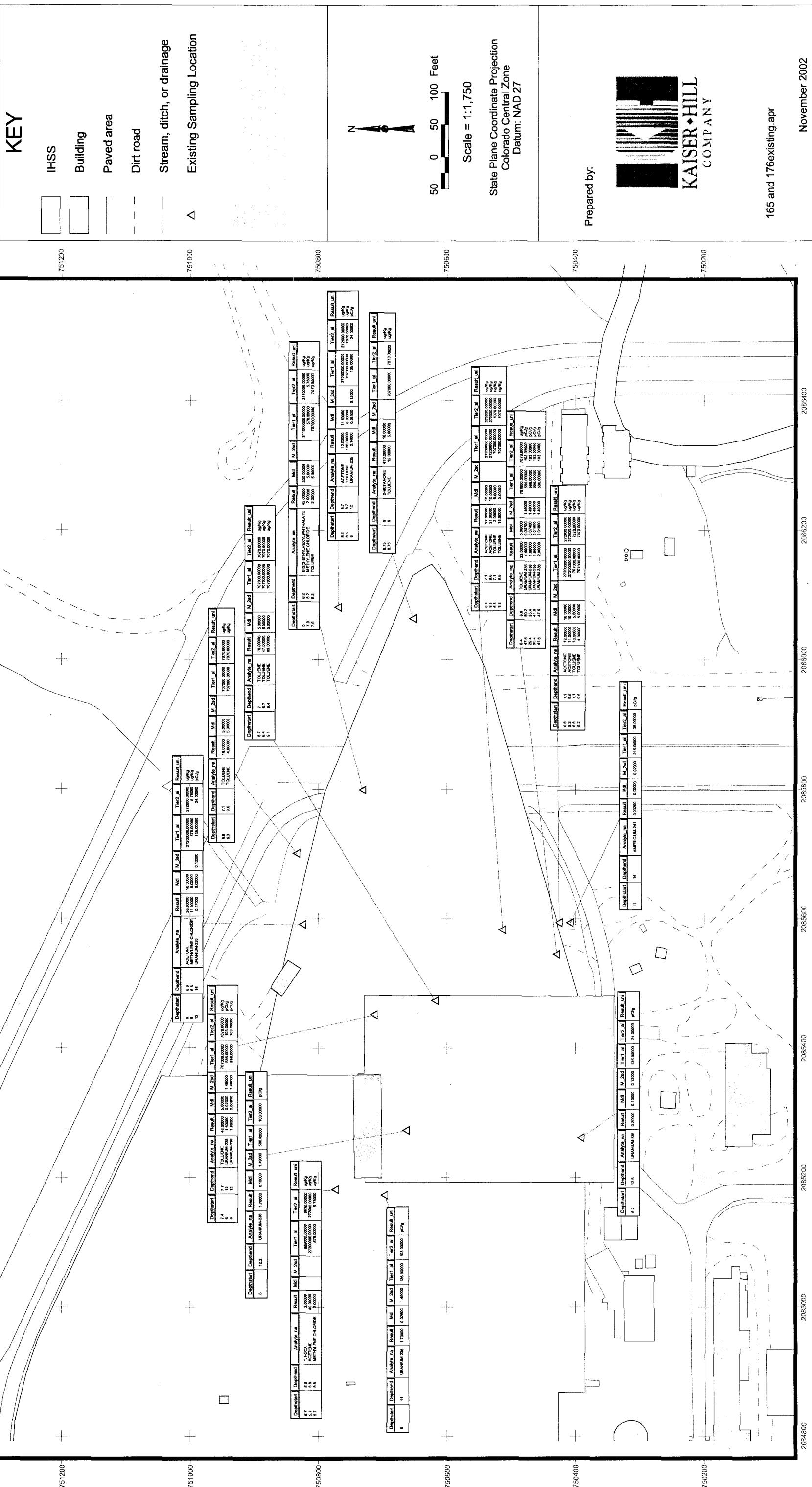
Prepared by:



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November 2002



**Figure 3**  
**Existing Surface Sampling Location**  
**Results Greater Than Background Plus**  
**Two Standard Deviations or Method**  
**Detection Limits**



**Figure 4**  
**Proposed Sampling Locations**  
**IHSS Group 000-1**

**KEY**

- IHSS
- SEP AOC
- Building
- Paved area
- Dirt road
- Stream, ditch, or drainage
- Biased Sampling Location
- Sampling Location

N

20 0 20 40 60 80 Feet

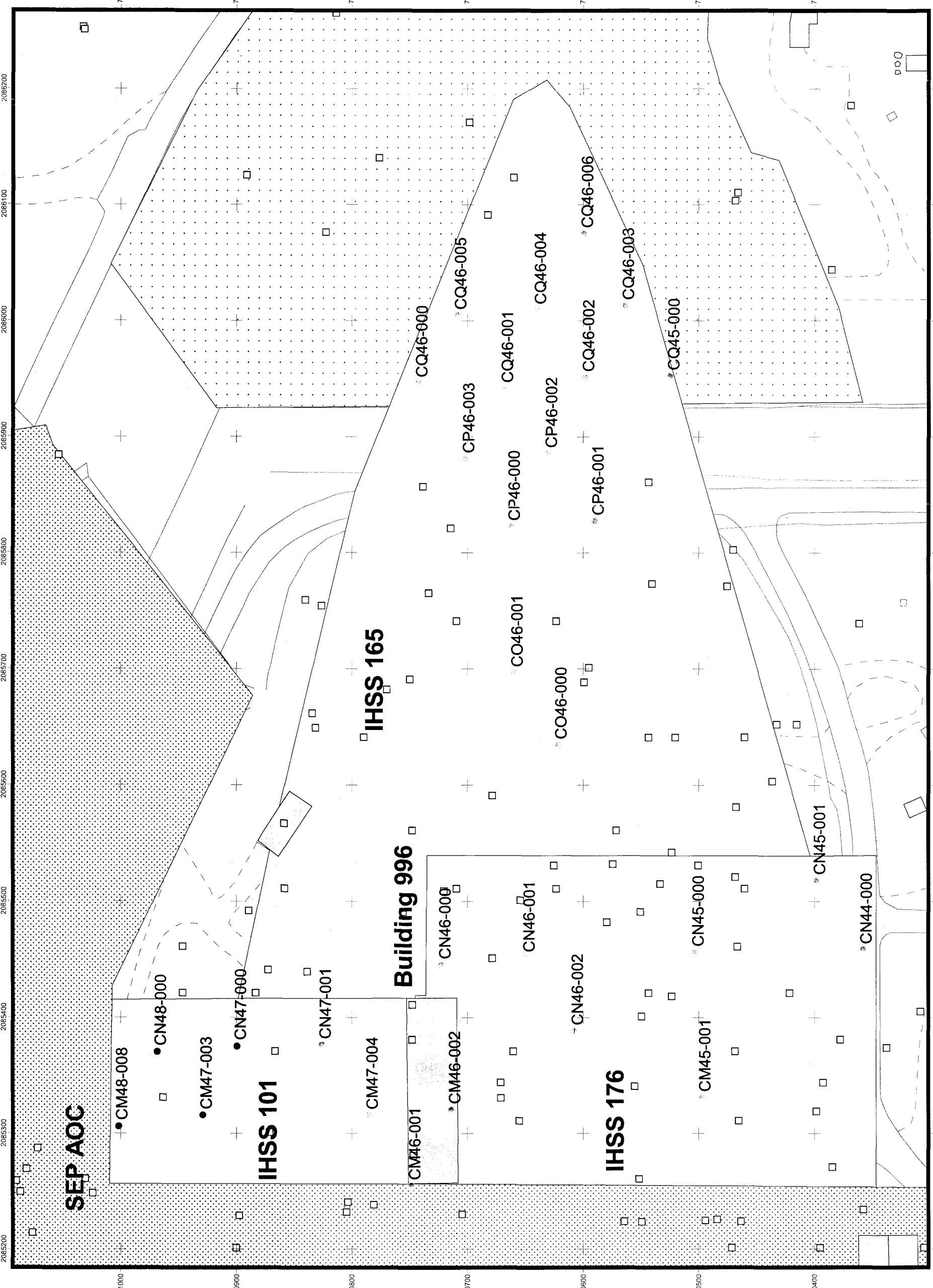
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State Plane Coordinate Projection  
Colorado Central Zone  
Datum: NAD 27

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**Figure 2**  
**Existing Surface Soil Results**  
**Greater Than Background Mean**  
**Plus Two Standard Deviations**  
**or Method Detection Limits**

